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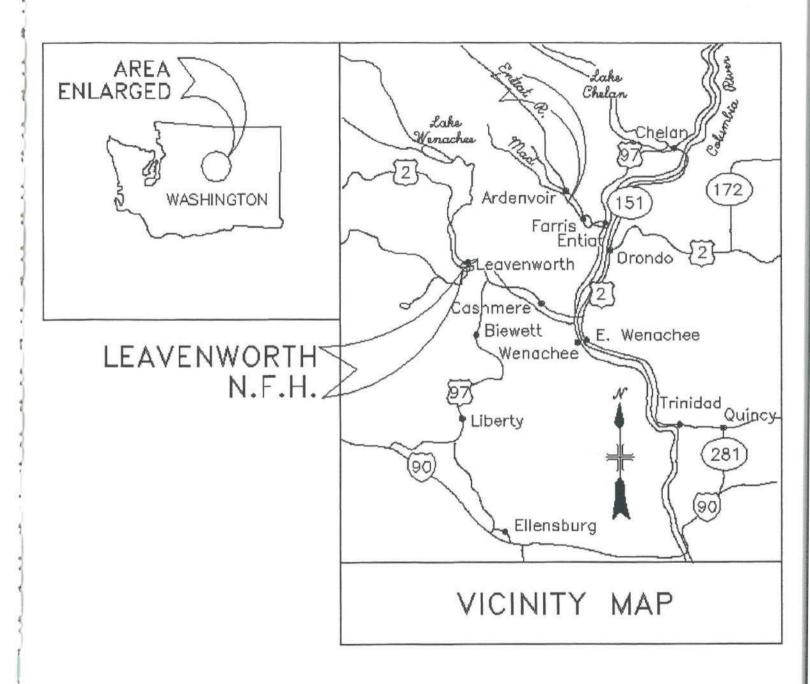
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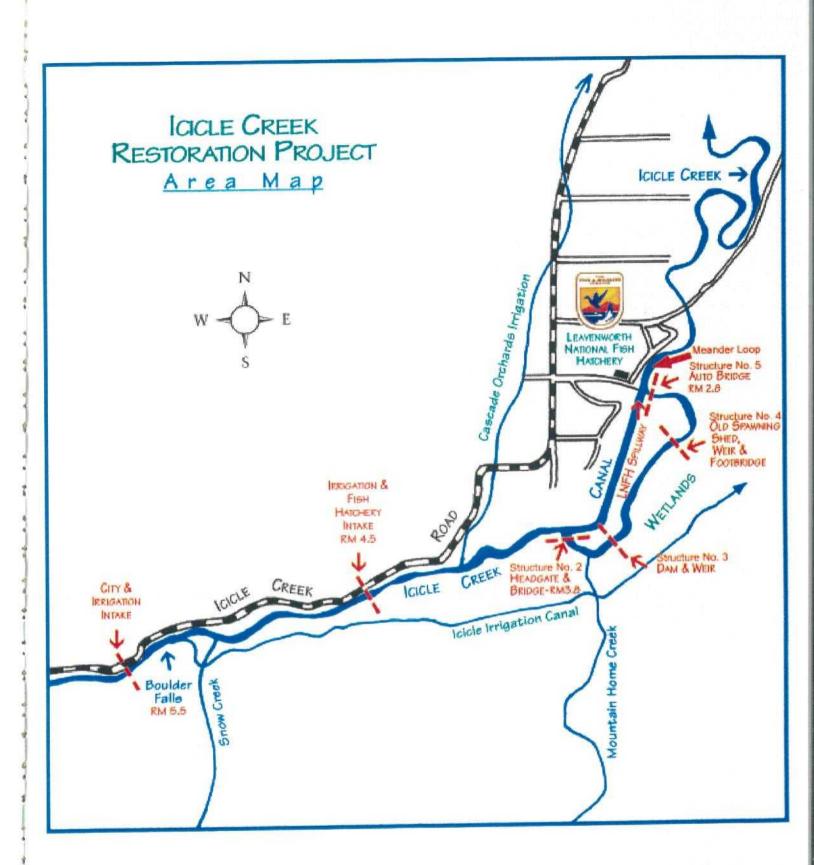
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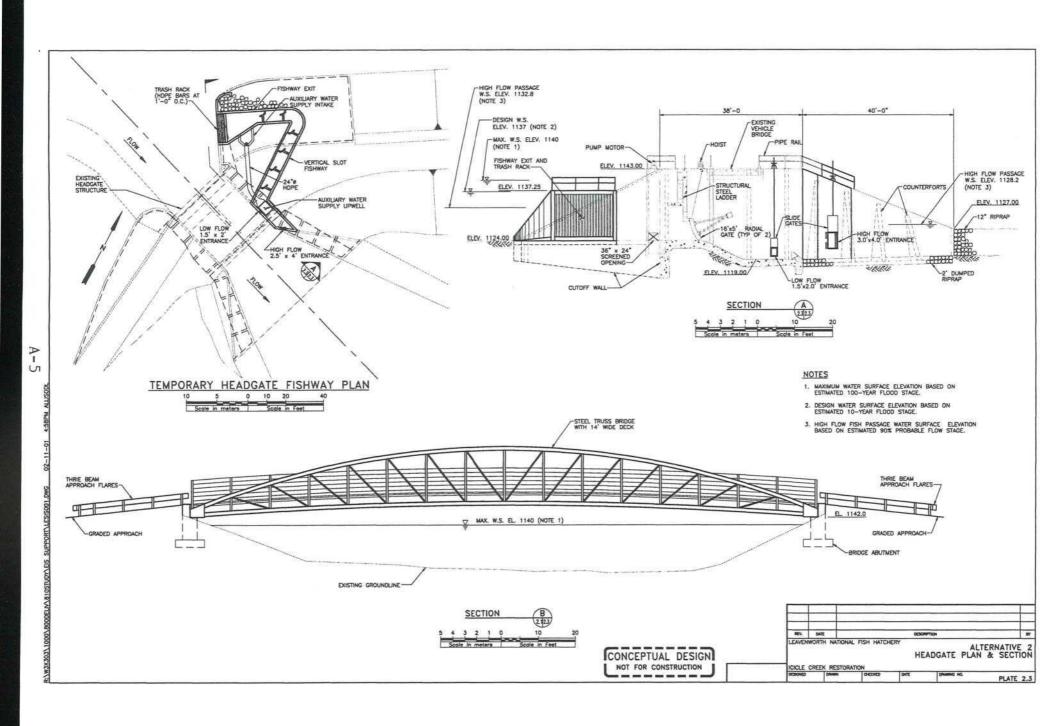
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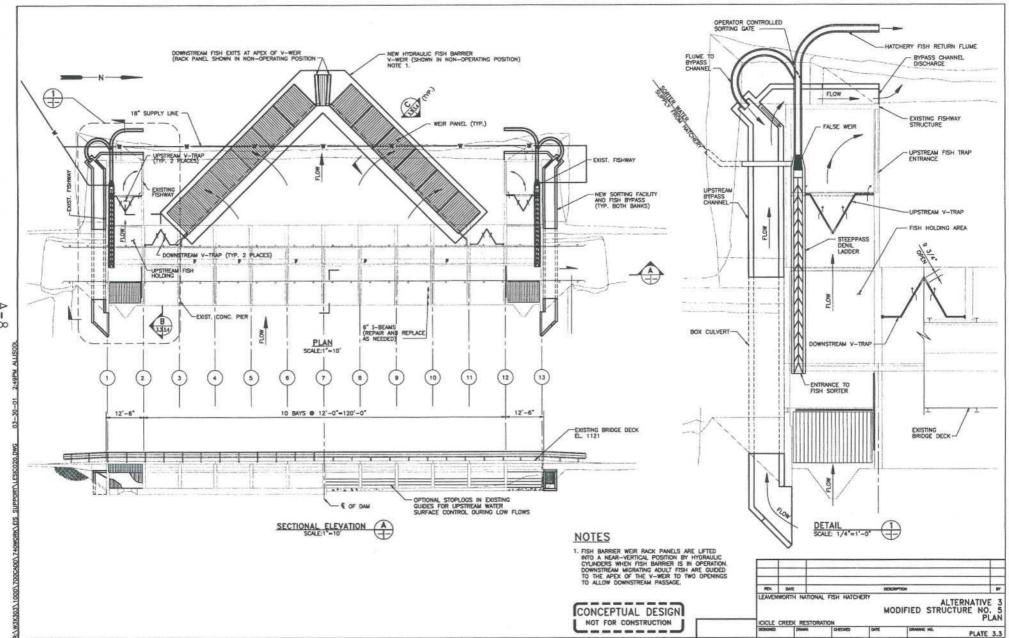
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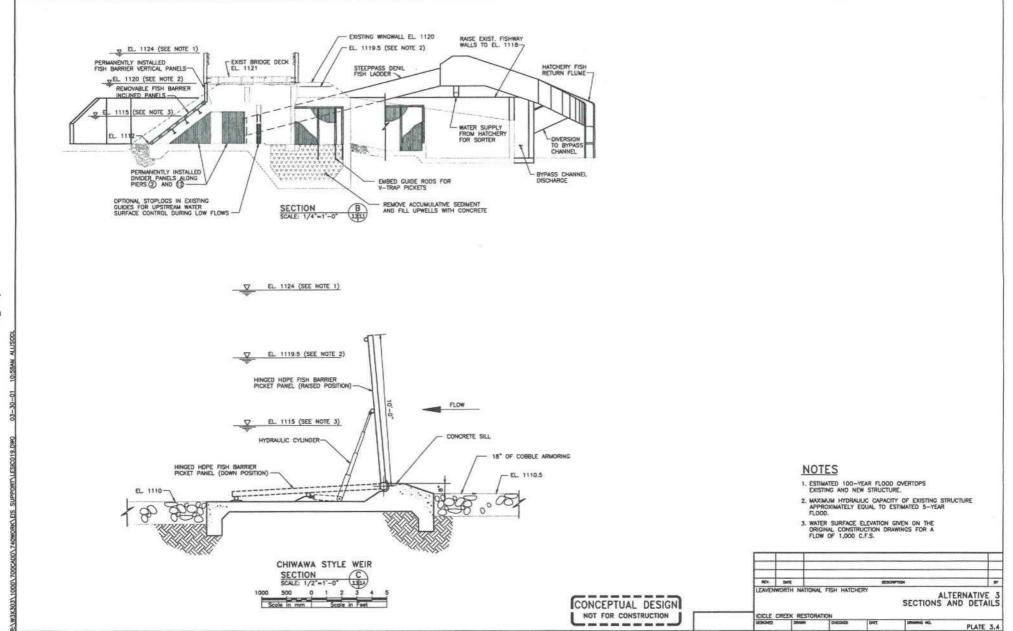




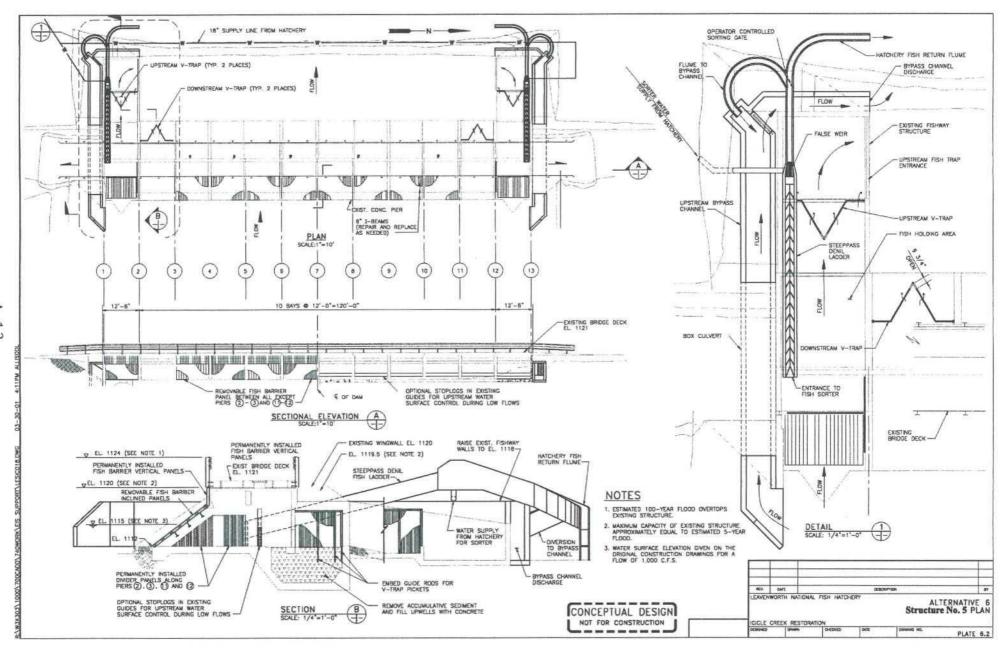
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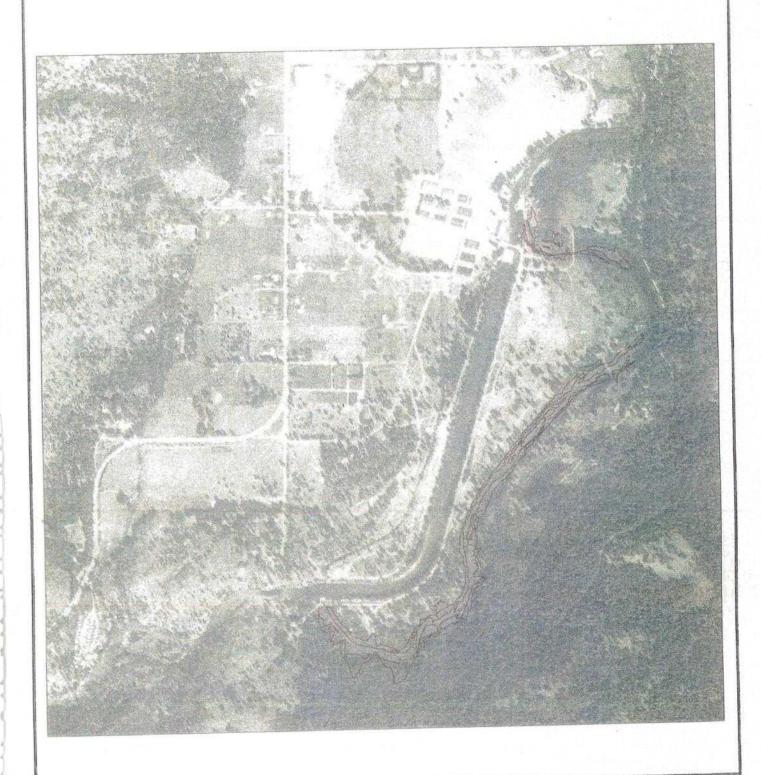






A-10





ENSR

Consulting • Engineering • Remediation

PROJECT NO: 6455-022-606

DRAWN: D. Norwood

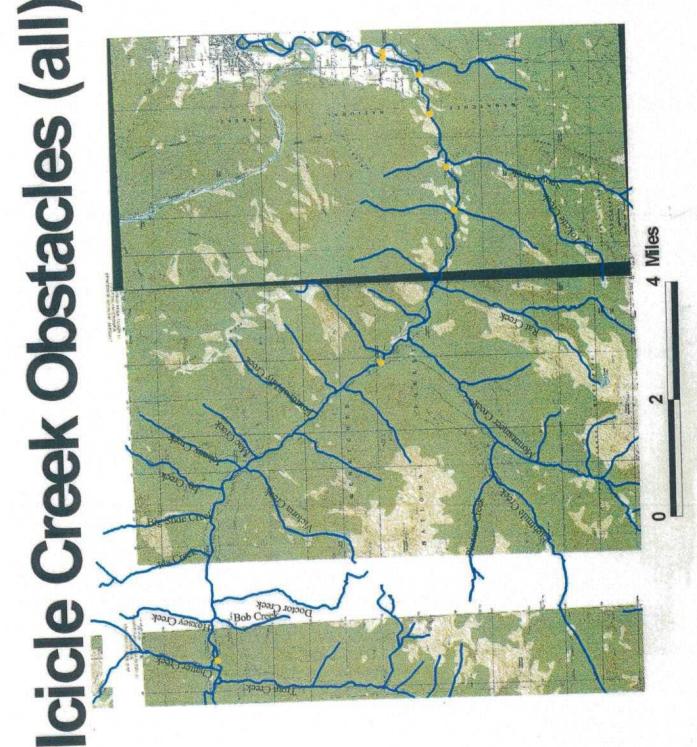
CHECKED: A. Boyce

DATE: January 18, 2000

DATE: January 18, 200 FILENAME: Fish-hat FIGURE 3-1
ICICLE CREEK ABANDONED
CHANNEL WETLANDS

LEAVENWORTH, WASHINGTON





Appendix B.
Current Photos
of Project Site

Headgate – Structure No. 2



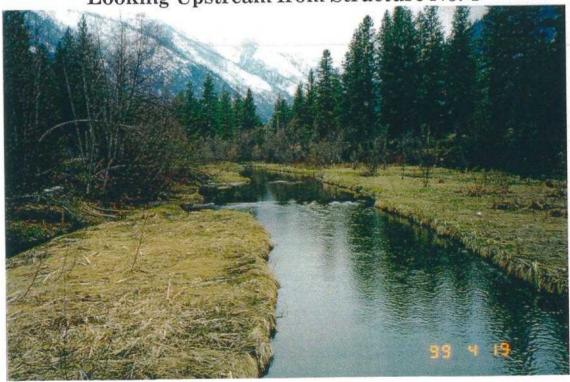
Diffusion Structure, Structure No. 3



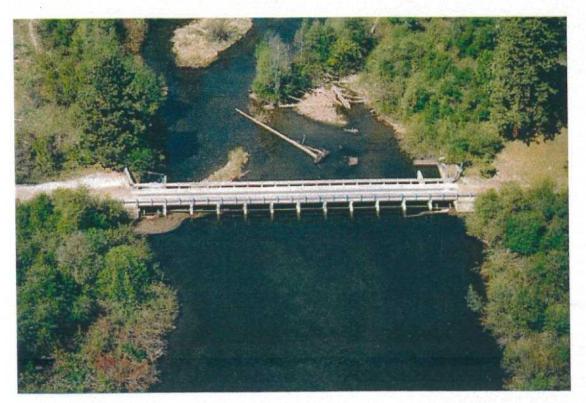
Structure No. 4 with Pedestrian Bridge Built Over Original Diffusion Structure



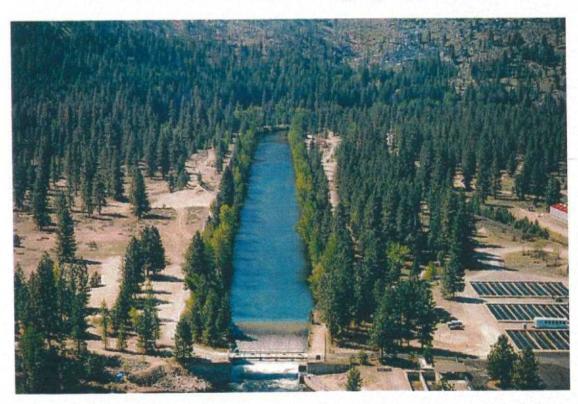
Accumulated Sediment and Vegetation Within the Original Channel Looking Upstream from Structure No. 4



Structure No. 5 Vehicle Bridge



Historic Canal (Looking Upstream)



Appendix C.
Secretary of the
Interior's
Standards for
the Treatment of
Historic
Properties/36
CFR Part 800

36 CFR Part 800 are the rules and regulations for the National Historic Preservation Act, 1966 (as amended). The sections most pertinent to the Icicle Creek Restoration EIS is 800.4 – Identification of Historic Properties and 800.5 – Assessment of Adverse Effects. The dams, structures, and canal have been identified as historic properties (Speulda, 1998). Therefore, as per the rules and regulations we must assess the project for Adverse Effects.

"Adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative" (36 CFR 800.5(1)).

Examples of adverse effects that are applicable to the Icicle Creek Restoration Project include, but are not limited to:

- "(i) Physical destruction of or damage to all or part of the property;
- (ii) Alteration of a property...that is not consistent with the Secretary's Standards for the Treatment of Historic Properties [36CFR par 68];
- (iii) Removal of the property from its historic location;
- (iv) Change of the character of the property's use of physical features within the property's setting that contribute to its historic significance" (36CFR800.5(2)).

Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR Part 68) provide guidelines for consistently treating historic properties during rehabilitation, restoration, or reconstruction projects, with an emphasis placed on maintaining the original historic character and materials of the building or structure. The application of the Secretary's Standards is pertinent to several alternatives offered by the Icicle Creek Restoration EIS. Alterations to the headgate can be designed to conform to the Standards. Because the final alternative has not been chosen and within the alternatives there are many decisions that will be made after the final is chosen and the work completed, that at this point we can not make a definitive statement about the types of effects. Therefore, consultation will continue with the SHPO and interested parties as plans solidify to determine if the outcome is consistent with the Standards, and if not, determine the appropriate level of mitigation.

Appendix D.
Threatened,
Endangered or
Sensitive Plant
Species

Potential Habitat and Current Status of Endangered, Threatened and Sensitive Plant Species with Potential Habitat in Planning Area

Species Name	Potential Habitat	Federal Status	State Status	USFS Regional List
Antennaria parvifolia	Dry, open places, openings in ponderosa pine forests, on sand and gravel substrates, often riparian in foothills of the Columbia Basin.	None	S	Yes
Cicuta bulbifera	Marshes, bogs, wet meadows, other wet areas, from plains and lowlands to mountain valleys.	None	S	Yes
Delphinium viridescens	Moist microsites in open coniferous forests; springs, seeps, riparian areas, where there is surface water or saturated upper soil layers spring to early summer, drying in late summer. Elevation range 1800'-4200'.	S of C	E	Yes
Iliamna longisepala	Dry sagebrush steppes and open hillsides, gravelly streamsides, open ponderosa pine and Douglas-fir forests. Elevation range 650'-4000'.	S of C	Т	Yes
Sidalcea oregana var. calva	Dry forest and moist meadows, stream margins generally within ponderosa pine forest.	Е	E	Yes
Spiranthes diluvialis	Wetland and riparian areas, including spring habitats, mesic to wet meadows, river meanders, and floodplains. Elevation range 1500'-7000'.	Т	E	Yes

Appendix E. Outreach Plan

Outreach Plan for Icicle Creek Restoration Project - Leavenworth, Washington

Prepared by Information and Education Specialist Corky Broaddus, U. S. Fish and Wildlife Service, Leavenworth National Fish Hatchery, Leavenworth, Washington

Issue:

When the Leavenworth National Fish Hatchery was constructed in the late 1930's, the original riverbed was significantly modified. A series of dams, weirs, holding ponds and spawning buildings were installed to hold adult salmon and steelhead prior to annual spawning. Since water flow control was critical, the main flow of Icicle Creek was diverted into a newly constructed canal with an energy control dam at the downstream end. Fish movement to river areas above the hatchery was controlled.

In 1979, the riverbed was abandoned and a conventional fish ladder into the hatchery was built just below and adjacent to the energy control dam. The structures in the original riverbed are currently in poor state of repair due to flood damage, age and lack of maintenance. On July 27, 1998, the Leavenworth Hatchery Complex structures and buildings were officially added to the National Register of Historic Places.

Early in 1998, the Icicle Creek Watershed Council (Council), an active local community organization, proposed restoration of fish passage above the hatchery to approximately 21 miles of river habitat. This came soon after native steelhead and bull trout were listed as endangered and threatened, respectively, under the Endangered Species Act. Public meetings and field tours were hosted by the Council to expose state, federal, tribal and community leaders to the idea of reestablishing anadromous fish above the Leavenworth National Fish Hatchery barriers in Icicle Creek. The Council is a very active organization and continues to draw interest from many local citizens, agencies, congressional members and organizations including the Bonneville Power Administration, U.S. Forest Service, National Marine Fisheries Service, Environmental Protection Agency, Washington Department of Fish and Wildlife, Washington Trout and more.

Before the Council made a formal proposal for fish passage to Leavenworth Hatchery management, the FWS had begun the process of designing studies to determine whether it is feasible to reintroduce anadromous fish above the hatchery barriers. Funding has been limited. After the listing of Upper Columbia River steelhead, a new urgency on projects such as this surfaced. The Mid-Columbia River Fishery Resource Office (MCRFRO) has started the biological and hydrological assessments necessary to gain an understanding of the potential impacts of structure removal on the aquatic and riparian ecosystems and private properties downstream. This information will be necessary for inclusion in permit applications and in the upcoming required NEPA Environmental Impact Statement work. The biological baseline information on the habitat and initiation of a monitoring protocol will be completed this year by MCRFRO staff. U.S. Forest Service resource specialists from the Wenatchee National Forest will lead us through this process with a multi-agency interdisciplinary team beginning January 1999.

The Leavenworth National Fish Hatchery management supports fish passage and habitat restoration. However, it is of critical importance that this project does not negatively impact hatchery operations.

Project Contacts:

Greg Pratschner, Project Leader for the Leavenworth National Fish Hatchery Complex, 509.548.7641 Brian Cates, Project Leader for the Mid-Columbia Fisheries Resource Office, 509.548.7573 Bob Stoehr, NEPA Specialist and ID Team Leader, USFS Leavenworth Ranger District, 509.548.6977 Corky Broaddus, Information and Education Specialist, Leavenworth NFH, 509.548.7641

Communication Goals:

Identify key contact people for information sharing with each cooperating agency.

Provide concise and timely messages internally to all Leavenworth Nat'l Fish Hatchery Complex employees. Coordinate timely internal and external communication within and from all agencies involved to insure dissemination of consistent, timely and accurate information.

Ensure that the cooperating agencies are not surprised by news reports or other communication with various publics.

Maintain good working relationships between the U.S. Fish and Wildlife Service (Service), U.S. Forest Service and other federal, state and tribal cooperators.

Ensure accurate news reporting.

Inform the public of the Service's actions including the timing of the Notice of Intent, public meetings, EIS drafting, and any resulting actions

Keep public involved in and informed about the process using project updates through media and web site for the Leavenworth National Fish Hatchery Complex.

Be certain all NEPA requirements are met.

Messages:

The Leavenworth National Fish Hatchery on Icicle Creek raises spring chinook salmon. Historically, salmon returns have exceeded escapement requirements. This has provided consistent annual harvest for both a tribal and sport fishery.

The communities of the Wenatchee River Watershed have voiced support for fish passage beyond the hatchery as long as hatchery operations and fish health are not jeopardized.

The management of the Leavenworth National Fish Hatchery supports fish passage in the original Icicle Creek channel.

The agencies are working together on the completion of the Environmental Impact Statement (EIS) that will adequately address the concerns related to fish passage and habitat restoration of Icicle Creek, Leavenworth National Fish Hatchery operations and the community.

An EIS is required because selection of any of the alternatives will be a significant federal action.

The Icicle Creek Restoration Project ID Team wants to hear from the public! Public input is needed to help agencies make a good decision and the public will be given adequate opportunities for input during the entire process.

Interested Parties:

Agencies:

Federal legislators

State Legislators

Yakama Indian Nation

Colville Confederated tribes

Corps of Engineers

Environmental Protection Agency (EPA)

US Forest Service (USFS)

Chelan County Commissioners

Wenatchee Valley City Chambers of Commerce

WA. Dept. of Fish and Wildlife (WDF&W)

City of Leavenworth

State Department of Ecology (DOE)

National Marine Fisheries Service (NMFS)

Natural Resource Conservation Service (NRCS)

US Geologic Survey (USGS)

State Historic Preservation Office (SHPO)

American Fisheries Society

Chelan County Conservation District

USFWS Boise Tech/Hydro Group

Associations:

Trout Unlimited

Icicle Watershed Council

Washington Trout

Irrigation Districts

Service Clubs

Icicle Island Club

Trout Unlimited

American Rivers

Chelan County Historical Society

Audubon Society

North Central Washington Museum

Chumstick Watershed Council

Peshastin Watershed Council

Mission/Yaksum/Brender Watershed Council

Leavenworth Winter Sports Club

Wildlife Society

Leavenworth NFH Society

Northwest Ecosystem Alliance

Leavenworth Audubon Adopt a Forest

Other Organizations, Interested Businesses:

Sporting Stores

Fishing Clubs

Fishing Guide Services

Rafting Guide Companies

Adjacent property owners:

Cascade School District
Bunkhouse residents
Sleeping Lady Retreat Center
Copper Notch residents
Equestrians
Volkssport Association

Key Dates:

First Public Meeting June 1998
Full Scoping Period began January 1999
Briefing Summaries available March 1999
Video and Photos Produced for Public Distribution Summer 1999
Timeline for EIS Completion Ongoing

Strategy:

News media (print, radio, TV, talk shows)

Targeted briefings with key audiences (editorial boards, county commissioners, environmental groups, government cooperators, tribes, etc.)

Public meetings (Leavenworth, WA.)

Information posted on local bulletin boards, distributed to other appropriate audiences (flyers, Q&A, updates) Website managed by Leavenworth National Fish Hatchery (public comments generated from website to be logged in contact book)

Letters to key contacts

Historical Display depicting hatchery construction history

Video and slides available of project area

Materials:

Prepared By:

Press release Fact Sheet FWS FWS

Question and Answer

FWS & FS ID team FWS & FS ID team

Key contact table

Materials Optional:

Prepared By:

Talking points Speeches FWS and FS

Chronology Maps FWS and FS FWS and FS

Photos Video FWS FWS

(Note: these materials will be prepared and provided throughout the scoping and public comment period, as needed.)

PRESS RELEASE:	
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Appendix F.
Stream
Dynamics/Fish
Habitat Desired
Future Condition

DESIRED FUTURE CONDITION

Stream Dynamics/Fish Habitat

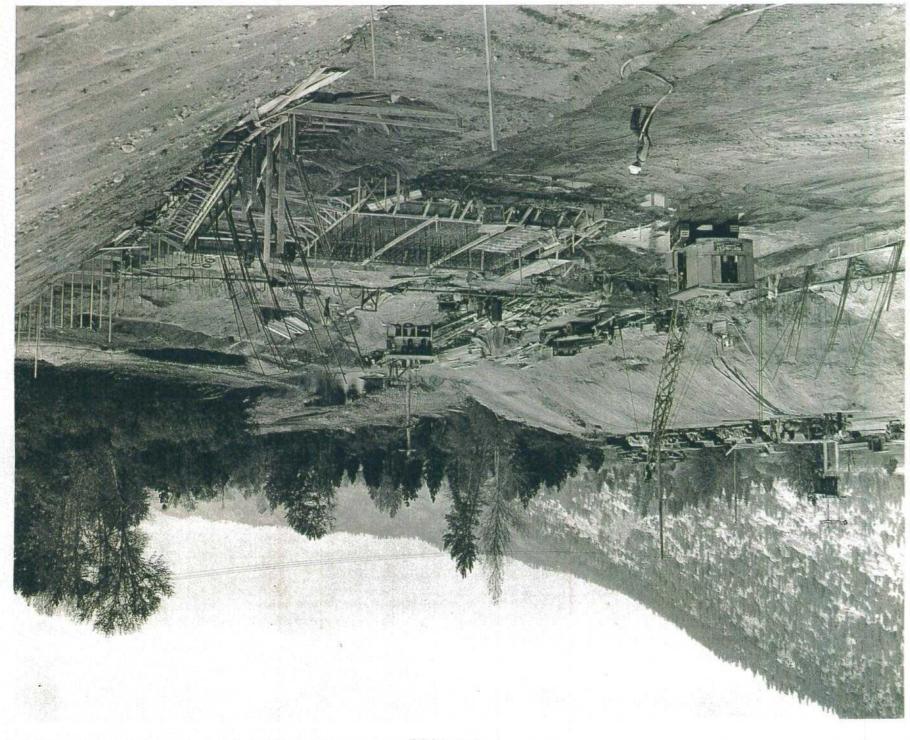
The desired future condition regarding fish passage is to provide both upstream and downstream fish passage to areas of river habitat upstream from the LNFH, specifically through or around the reach of Icicle Creek between the hatchery headgate at Structure No. 2 and the weir structure at Structure No. 5.

The desired future condition regarding fish habitat is to improve habitat within the historic stream channel from Structure No. 2 to Structure No. 5 such that the channel width, depth and substrate are comparable to historic conditions. Accumulated sediments and depositional material in the historic Icicle Creek channel would be removed, by natural flushing or mechanically down to the level of the gravel and cobble surface of the historic channel. Deposition of displaced sediment from the historic Icicle Creek channel would be minimized in the downstream reach of Icicle Creek from the planning area to the confluence of the Icicle Creek and the Wenatchee River. There would be minimal effect on chemical and physical water quality indices from removal of accumulated depositional material.

The desired future condition regarding streamflow is to reroute the Icicle Creek streamflow back through the historic channel. The historic channel capacity should be reestablished by removing accumulated sediment deposits. Any change, either temporary or permanent, to the inherent channel stability and morphology of Icicle Creek caused by the return of historic streamflow volumes to the original channel should pose minimal impacts to the downstream channel and to adjacent property. There should be minimal impact on the

recharge of groundwater wells within the hatchery grounds caused by any shift of natural streamflow volume from the canal bypass to the historic channel. Appendix G.
Historical
Photos of Each
Structure

TAUTHO JANAS



FEB 5, 1940

C.B. 4194

5467-3

CANAL

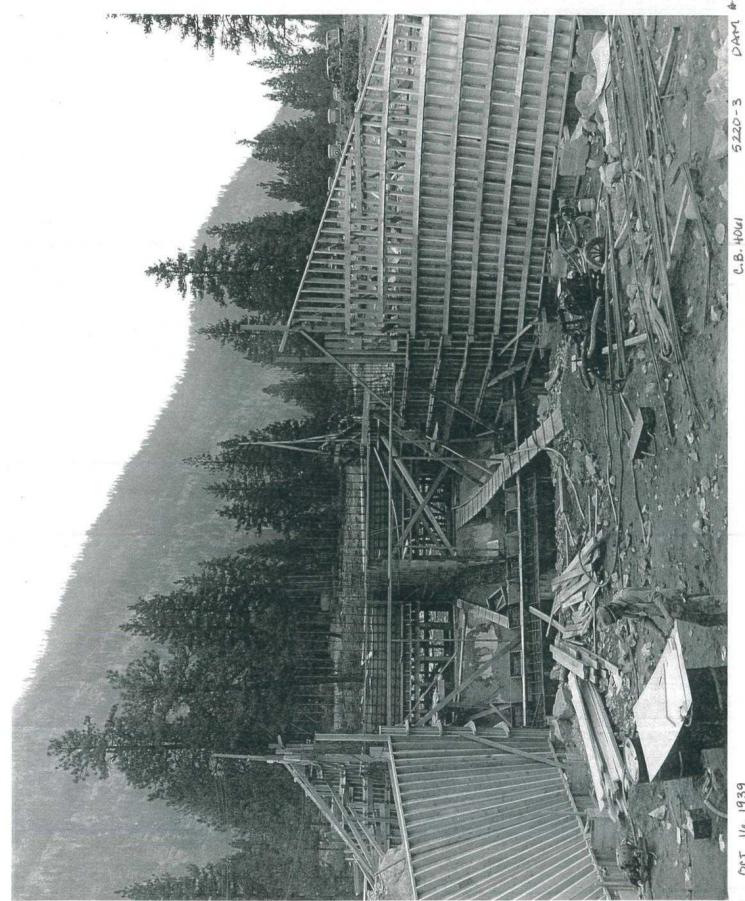
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MAY 8, 1940

C.B. 4432

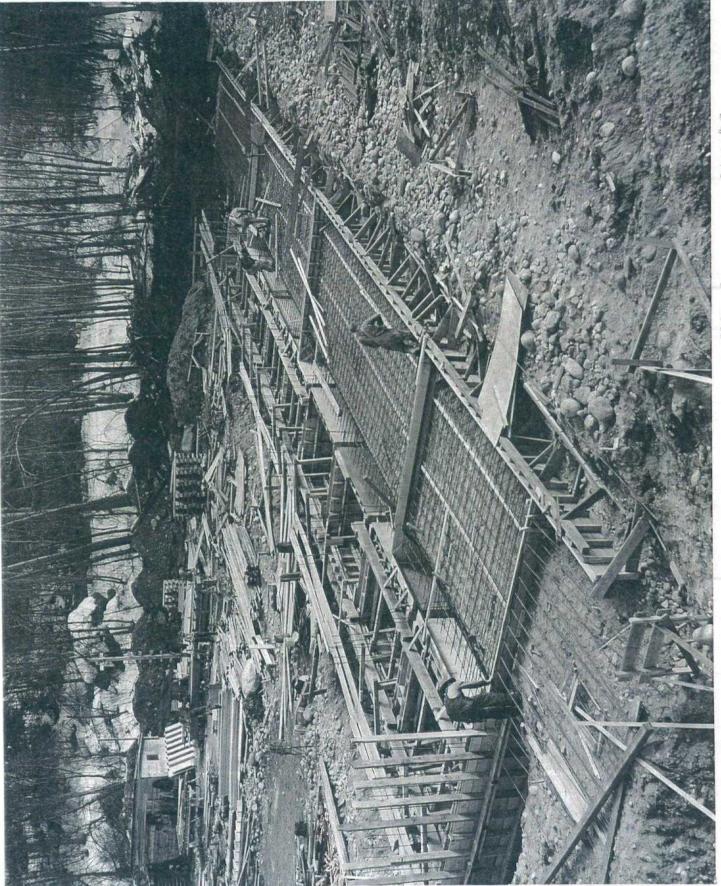
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[XM # Z



16, 1939

G-5





6223-3

Dam # 3 Spawning Shed

(23

Man & lake



DEC 22, 1939

C.B 4059 3040-2

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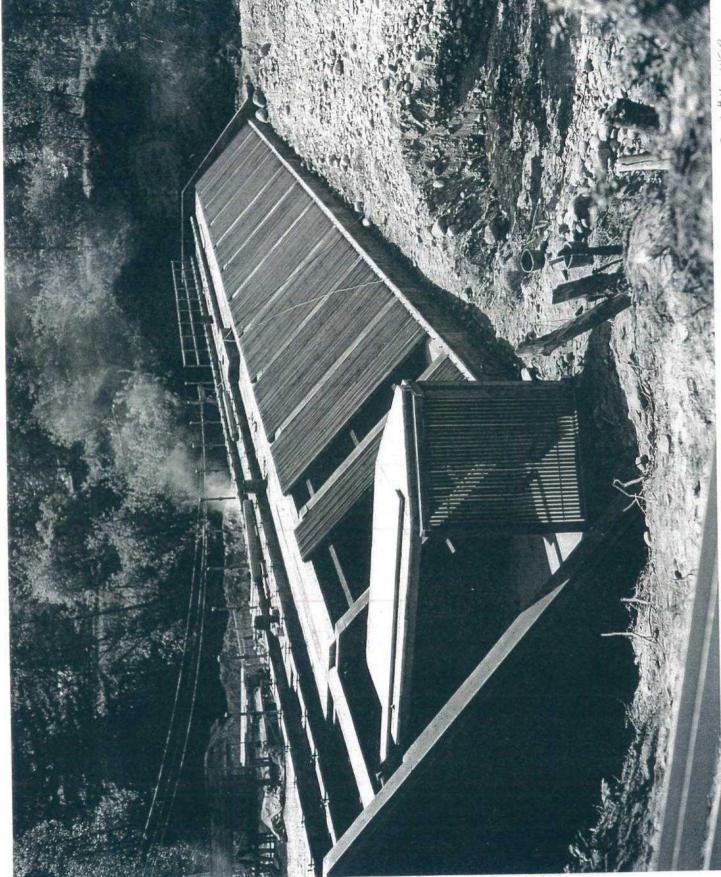
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FEB 4, 1940

C.B. 4200

5673-3

BRIDGE ACROSS SPILLWAY



MAY 9, 1940

DAM #5

